

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/002124 A3

(51) International Patent Classification⁷: **H04Q 7/20**

(21) International Application Number:
PCT/US2004/020345

(22) International Filing Date: 24 June 2004 (24.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/480,735 24 June 2003 (24.06.2003) US

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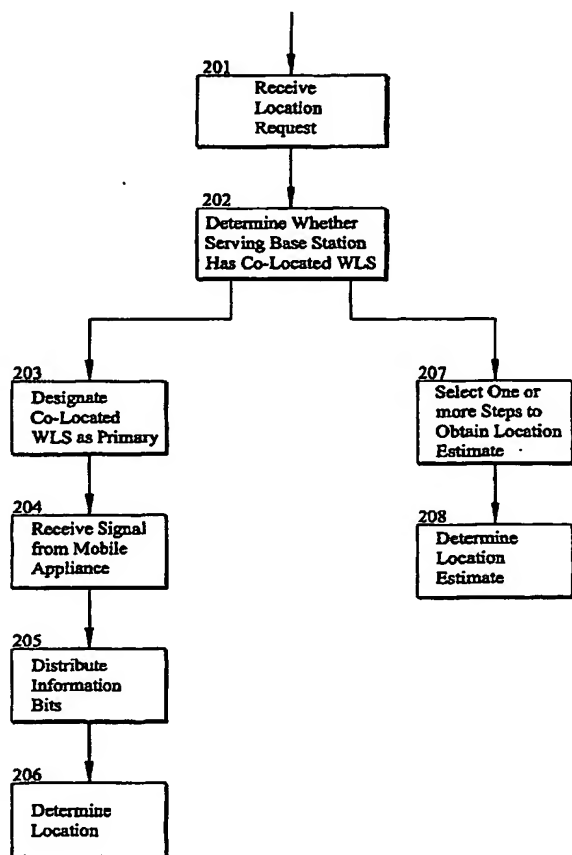
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: **METHOD FOR SPARSE NETWORK DEPLOYMENT ACCURACY ENHANCEMENTS**



(57) Abstract: A method for use in a wireless communication system with a network overlay geolocation system having a sparse deployment network in which base stations of the wireless communication system may or may not have a co-located wireless location sensors (WLS) (202). The method enables detection and measurement of a target mobile's signal (204) independently from a primary WLS located at the base station serving the target mobile (203), which enable location estimated in previous "no location" areas. The method selects based on predetermined criteria from one or more of several techniques that aid in the detection and determining a location for the target mobile (207). The method selects from timing advance, power levels, pattern matching, EOTD, speed, and pseudo range measurements to estimate the location of the mobile (208). The method also uses ambiguity function processing to detect the signal and measure an attribute of the signal.

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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
14 April 2005

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Published:

— with international search report

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/20345

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04Q 7/20

US CL : 455/456.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 455/456.1, 456.2, 456.5, 456.6, 561

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | US 5,600,706 A (DUNN et al.) 04 February 1997 (04.02.1997); abstract, fig. 2 | 1-23 |
| X | US 5,973,643 A (HAWKES et al.) 26 October 1999 (26.10.1999); fig. 1, abstract, col. 5: | 1, 4 |
| — | lines 18-25 | |
| A | | 2-3, 5-23 |

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Date of the actual completion of the international search

02 January 2005 (02.01.2005)

Date of mailing of the international search report

19 JAN 2005

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